

Appln. No.: 10/526,998
Amendment Dated October 5, 2007
Reply to Office Action of April 9, 2007

TJA-102US

Amendments to the Drawings:

The attached replacement sheet includes changes to Figure 9. This sheet replaces the original sheet.

Also attached is new Figure 10. Please include this new sheet with the existing figures in the application.

Attachments

Remarks/Arguments:

Claims 28-62 are pending. Claims 28-62 stand rejected.

Objections to the Drawings

The Office Action at page 2, paragraph 2, objected to the claims under 37 CFR 1.83(a) because "Every feature of the invention specified in the claims is not shown ..." Applicant herewith submits Figure 10 that shows some of the elements set forth in paragraph 2 of the Office Action. Regarding each of these elements, they are well-described in the specification as originally filed, e.g., at page 7, lines 3-19. Regarding other of the claimed elements, applicant respectfully traverses the objection. Specifically, connection means with the exterior is shown in Figure 1 as element 13 and described at page 6, lines 14-15. The heating means is shown in Figures 1-8 for example and described in the specification at page 7, line 20 through page 9, line 31 with respect to the electrical resistance of claim 50, this element is also shown in the figures and described in the specification. Applicant respectfully directs the Examiner's attention to Figures 1-8 and the specification at page 6, line 6 through page 10, line 17. With respect to the objection to the Peltier cell claimed in claim 61, applicant traverses this objection and believes that no further amendment to the drawings are necessary. Specifically, in accordance with 37 CFR 1.83(a) "conventional features disclosed in the specification and claims, where their detailed illustration is not essential for the proper understanding of the invention, should be illustrated in the drawing in the form of a ... labeled representation..." (emphasis added) Applicant respectfully submits that the original labeled figures meet this requirement and requests therefore that the objection be withdrawn. Regarding the objection to claim 62, applicant respectfully directs the Examiner's attention to Figure 9, specifically nozzle 20 and the associated description in the specification regarding the heating or air conditioning system of claim 62, applicant has amended Figure 9 to show the air conditioning system 30 although applicant believes that such an amendment is unnecessary.

In view of the above, applicant respectfully requests that the objections to the drawings be withdrawn.

Rejections Under 35 U.S.C. § 102

The Office Action sets forth at page 4, paragraph 4, "Claims 28-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Fujikawa et al...." Applicant respectfully traverses this rejection for the reasons set forth below.

Applicant's invention as recited in claim 28, includes features not disclosed or suggested by Fujikawa, namely:

...a casing comprising a protected interior, said casing defining a window closed by a transparent element and supporting means defined by part of said casing for supporting an optical system inside said casing and facing said window ...

image detection means located in said casing, facing said optical system and associated with connection means with the exterior, for supplying electrical signals and for bidirectional signal interchange ...(Emphasis added)

These features are described in applicant's specification, for example, at page 6, line 6 through page 7, line 2.

Fujikawa is relied upon as "[disclosing] an image acquisition unit (5) with a heating device for monitoring an exterior of a vehicle, comprising...a transparent element (7)...image detection means...with connection means with the exterior, for supplying electrical signal and/or for bidirectional signal interchange; and heating means (15) for providing thermal energy to said transparent element..." Fujikawa fails to disclose or suggest, however, a casing comprising a protected interior, said casing defining a window closed by a transparent element and supporting means defined by part of said casing for supporting an optical system inside said casing and facing said window and image detection means located in said casing, facing said optical system and associated with connection means for the exterior, for supplying electrical signals and for bidirectional interchange.

In contrast, applicant's invention as recited in claim 28 includes i) a casing comprising a protected interior, said casing defining a window closed by a transparent element and supporting means defined by part of said casing for supporting an optical system inside said casing and facing said window, and ii) image detection means located in said casing, facing said

optical system and associated with connection means with the exterior, for supplying electrical signals and for bidirectional signal interchange.

It is because applicant has included the features of i) a casing comprising a protected interior, said casing defining a window closed by a transparent element and supporting means defined by part of said casing for supporting an optical system inside said casing and facing said window, and ii) image detection means located in said casing, facing said optical system and associated with connection means with the exterior, for supplying electrical signals and for bidirectional signal interchange, that applicant is able to provide an image acquisition unit for monitoring the exterior of a vehicle that is able to do so in adverse weather and humidity conditions. Fujikawa fails to achieve these advantages because Fujikawa does not include i) a casing comprising a protected interior, said casing defining a window closed by a transparent element and supporting means defined by part of said casing for supporting an optical system inside said casing and facing said window, and ii) image detection means located in said casing, facing said optical system and associated with connection means with the exterior, for supplying electrical signals and for bidirectional signal interchange.

Applicant respectfully submits, therefore, that the rejection of claim 28 as being anticipated by Fujikawa should be withdrawn and the claim allowed.

Claim 29 depends upon claim 28 and, thus, is likewise not subject to rejection for at least the reasons set forth above with respect to claim 28.

The Office Action sets forth at page 5, paragraph 6, "Claims 28-31, 33, 37 and 59 are rejected under 35 U.S.C. 102(b) as being anticipated by Schofield et al. (US6498620)." Applicant respectfully traverses this rejection for the reasons set forth below.

Schofield is relied upon as "[disclosing] an image acquisition unit (14, 16) with a heating device (168) for monitoring an exterior of a vehicle, comprising: a casing comprising a protected interior, a window closed by a transparent element and supporting means for supporting an optical system facing said window; image detection means located in said casing, facing said optical system and associated with connection means with the exterior, for supplying electrical signal and/or for bidirectional signal interchange; and heating means for providing thermal energy to said transparent element, or to an adjacent zone thereto..." Applicant respectfully disagrees with this overly broad interpretation of Schofield. Specifically,

Figure 20 (relied upon by the Office as the basis for the rejection) and the accompanying description at col. 20, lines 13-40 fail to disclose any of applicant's claimed structural features. Furthermore, there is no disclosure or suggestion that the heater 168 provides thermal energy to a transparent element associated with the image detector. Additionally, Schofield fails to disclose or suggest a casing comprising a protected interior, said casing defining a window closed by a transparent element and supporting means defined by part of said casing for supporting an optical system inside said casing in facing said window and image detection means located in said casing, facing said optical system and associated with connection means with the exterior, for supplying electrical signals and for bidirectional signal interchange.

Because Schofield fails to disclose each and every feature of applicant's invention of claim 28, applicant respectfully submits that the rejection of claim 28 as being anticipated by Schofield et al. is improper, should be withdrawn and the claim allowed.

Regarding claim 37, there is absolutely no disclosure or suggestion in Schofield that the electrical heater comprises at least one electrical resistance directly applied on said transparent element. Applicant notes that the Office relies upon Figure 20 for showing this feature but the applicant is unable to find any reference in Figure 20 or in the accompanying description in the specification that discloses or suggests that the heater is comprised of at least one electrical resistance directly applied on said transparent element. Applicant respectfully submits, therefore, that the rejection of claim 37 is improper, should be withdrawn and the claim allowed.

Regarding claims 29-31, 33 and 59, because these claims depend upon claim 28 they are likewise not subject to rejection for at least the reasons set forth above with respect to claim 28.

Rejections Under 35 U.S.C. § 103

The Office sets forth at page 6, paragraph 8, "Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schofield...in view of Dokken (US5173585)." Applicant respectfully traverses this rejection for the reasons set forth below.

Dokken is relied upon as "[disclosing] a camera-heating jacket comprising a thermostat (44) to control the temperature of a heating element." Dokken fails to make up for the deficiencies, however, of Schofield discussed above with respect to claim 28. Accordingly,

because claim 32 depends upon allowable claim 28, applicant submits that claim 32 is likewise allowable.

The Office sets forth at page 7, paragraph 9, "Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schofield...in view of Dokken...and further in view of Flaishans et al. (US5699857)." Applicant respectfully traverses this rejection for the reasons set forth below.

Flaishans is relied upon as disclosing "on/off switch (90) is common for a heating system for a rear window (44), and a heating system for an external rear view mirror (46) to reduce system cost by reducing number of wire inter connections and components."

Without necessarily agreeing with this characterization of this reference, applicant notes that Flaishans fails to make up for the deficiencies discussed above with respect to Schofield and/or Dokken. Applicant respectfully requests, therefore, that the rejection of claim 34 be withdrawn and the claim allowed.

The Office sets forth at page 7, paragraph 10, "Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schofield...in view of Flaishans..." Applicant respectfully traverses this rejection for the reasons set forth below.

Flaishans is relied upon as disclosing "a control means comprising a climate control system (10), climate control head (12) and a multifunctional control module (14) comprising microprocessor as shown in the Figures 1-3." Flaishans fails to make up for the deficiencies, however, discussed above with respect to Schofield in claim 28. Applicant respectfully requests, therefore, that the rejection of claim 35 be withdrawn and the claim allowed.

The Office sets forth at page 8, paragraph 11, "Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schofield...in view of Flaishans...and further in view of Suman (US5525977)." Applicant respectfully traverses this rejection for the reasons set forth below.

Suman is relied upon as disclosing "a prompting system for vehicle personalization..." Without necessarily agreeing with this characterization of this reference, applicant notes that Suman fails to make up for the deficiencies of Schofield discussed above with respect to claim

28 from which claim 36 ultimately depends. Applicant respectfully requests, therefore, that the rejection of claim 36 be withdrawn and the claim allowed.

The Office Action sets forth at page 9, paragraph 12, "Claims 38-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schofield...in view of Jones et al. (US6512203)." Applicant respectfully traverses this rejection for the reasons set forth below.

Jones is relied upon as "[disclosing] a resistive ink (110) forms a heating element (R303) and conductive ink applied at end portions and exposed surfaces of the mounting pads..." Without necessarily agreeing with this characterization of this reference, applicant notes that Jones fails to make up for the deficiencies, however, of Schofield discussed above with respect to claim 28 from which claims 38-49 ultimately depend. Applicant respectfully requests, therefore, that the rejection of claims 38-49 be withdrawn and the claims allowed.

The Office Action sets forth at page 10, paragraph 13, "Claims 50-52 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schofield..." Applicant respectfully traverses this rejection for the reasons set forth below.

As set forth above, Schofield fails to disclose or suggest each and every feature of applicant's independent claim 28 from which claims 50-52 and 60 depend. Accordingly, applicant respectfully submits that the rejection of claims 50-52 and 60 as being unpatentable over Schofield is improper, should be withdrawn and the claim allowed.

The Office Action sets forth at page 12, paragraph 14, "Claims 53-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schofield...in view of Jones...further in view of Smucker (US5198639)." Applicant respectfully traverses this rejection for the reasons set forth below.

Smucker is relied upon as "[disclosing] a self-regulating mirror comprising a heating element having PTC material." Without necessarily agreeing with this characterization of this reference, applicant notes that Smucker fails to make up for the deficiencies of Schofield discussed above with respect to claim 28 from which claims 53-58 ultimately depend. Applicant respectfully requests, therefore, that the rejection of claims 53-58 be withdrawn and the claims allowed.

The Office Action sets forth at page 12, paragraph 15, "Claim 61 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schofield...in view of Hirmatsu (US6878907)." Applicant respectfully traverses this rejection for the reasons set forth below.

Hirmatsu is relied upon as "[disclosing] a ceramic substrate and process for producing the same comprising a resistance heating element (12) and a peltier device..." Without necessarily agreeing with this characterization of this reference, applicant notes that Hirmatsu fails to make up for the deficiencies of Schofield discussed above with respect to claim 28 from which claim 61 ultimately depends. Applicant respectfully requests, therefore, that the rejection of claim 61 be withdrawn and the claim allowed.

The Office Action sets forth at page 13, paragraph 16, "Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schofield...in view of Mazzilli (US6333759) or Uskolovsky et al. (US6738088)." Applicant respectfully traverses this rejection for the reasons set forth below.

Mazzilli and Uskolovsky are each relied upon as "[disclosing] a camera [] mounted to a windshield of an automobile. It is inherent to have defroster and built in nozzles to blow air to the windshield in order to create a warm air barrier in front of the external face of the windshield."

Applicant respectfully disagrees with the position taken by the Office regarding inherency of having a defroster blow air on the exterior face of the windshield. Applicant respectfully requests that the Office provide a prior art reference disclosing a warm air barrier of air ejected onto the exterior face of a windshield.

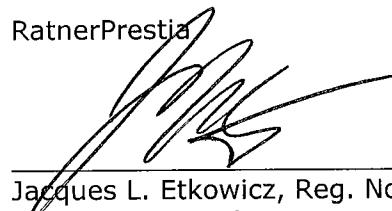
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In view of the amendments and remarks set forth above, applicant submits that the above-identified application is in condition for allowance which action is respectfully requested.

Respectfully submitted,

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JLE/kpc

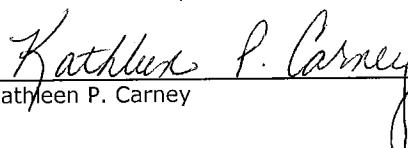
Attachments: Figures 9 and 10 (2 sheets)

Dated: October 5, 2007

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The Director is hereby authorized to charge or credit Deposit Account No. **18-0350** for any additional fees, or any underpayment or credit for overpayment in connection herewith.

I hereby certify that this correspondence is being electronically transmitted to: Commissioner for Patents, Alexandria, VA 22313-1450 on October 5, 2007.


Kathleen P. Carney